

Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A gateway network element that provides access to network elements that are not directly reachable, comprising:

a processor that is directed by code;

code that receives and sends packets over a first IP based interface to a first network;

code that receives and sends packets over a second IP based interface to a second network, wherein IP addresses of network elements in the second network are not visible to network elements in the first network;~~and~~

code that filters out packets received over the second IP based interface that specify the gateway network element as the a source of the packets; and

code that applies a first set of filtering rules to packets received over the first IP based interface and a second set of filtering rules to packets received at the second IP based interface, wherein said first and second set of rules specify acceptable destination addresses for the packets;

wherein the first network is a Data Communications Network (DCN) and the second network is a Data Communication Channel (DCC).

Claim 2 (original): The gateway network element of claim 1, further comprising code that sends packets over the first IP based interface only when the packets specify the gateway network element as the source.

Claim 3 (original): The gateway network element of claim 1, further comprising code that accepts packets received over the first IP based interface if the destination address specifies the gateway network element, a subnet broadcast address or a multicast address.

Claim 4 (original): The gateway network element of claim 1, further comprising code that implements a proxy server that provides forwarding between IP address of the first and second networks.

Claim 5 (canceled).

Claim 6 (canceled).

Claim 7 (currently amended): A gateway network element that provides access to network elements that are not directly reachable, comprising:

a processor that is directed by code;

means for receiving and sending packets over a first IP based interface to a first network;

means for receiving and sending packets over a second IP based interface to a second network, wherein IP addresses of network elements in the second network are not visible to network elements in the first network;~~and~~

means for filtering out packets received over the second IP based interface that specify the gateway network element as ~~the~~ a source of the packets; and

means for applying a first set of filtering rules to packets received over the first IP based interface and a second set of filtering rules to packets received at the second IP

based interface, wherein said first and second set of rules specify acceptable destination addresses for the packets;

wherein the first network is a Data Communications Network (DCN) and the second network is a Data Communication Channel (DCC)-

Claim 8 (currently amended): A method for providing access to network elements that are not directly reachable, comprising:

receiving and sending packets over a first IP based interface to a first network;

receiving and sending packets over a second IP based interface to a second network, wherein IP addresses of network elements in the second network are not visible to network elements in the first network;~~and~~

filtering out packets received over the second IP based interface that specify the gateway network element as ~~the~~ a source of the packets;

applying a first set of filtering rules to packets received over the first IP based interface and a second set of filtering rules to packets received at the second IP based interface, wherein said first and second set of rules specify acceptable destination addresses for the packets;

wherein the first network is a Data Communications Network (DCN) and the second network is a Data Communication Channel (DCC).

Claim 9 (original): The method of claim 8, further comprising sending packets over the first IP based interface that specify the gateway network element as the source.

Claim 10 (original): The method of claim 8, further comprising accepting packets received over the first IP based interface if the destination address specifies the gateway network element, a subnet broadcast address or a multicast address.

Claim 11 (original): The method of claim 8, further comprising accepting packets received over the second IP based interface if the destination address specifies the gateway network element, a network element in the second network or a multicast address.

Claim 12 (original): The method of claim 8, further comprising implementing a proxy server that provides forwarding between IP address of the first and second networks.

Claim 13 (canceled).

Claim 14 (canceled).

Claim 15 (canceled).

Claim 16 (canceled).

Claim 17 (canceled).

Claim 18 (new): The gateway network element of claim 1 further comprising:
code that accepts packets received over the first IP based interface if the destination address specifies the gateway network element, a subnet broadcast address or a multicast address; and

code that accepts packets received over the second IP based interface if the destination address specifies the gateway network element, a network element in the second network or a multicast address.

Claim 19 (new): The gateway network element of claim 1 further comprising code that applies a third set of filtering rules to packets received over the first IP based interface with a destination address of the gateway network element and a fourth set of filtering rules to packets received at the second IP based interface with a destination address of the gateway network element.

Claim 20 (new): The gateway network element of claim 1 further comprising code that filters packets received at the second network interface based on the type of packet and port to which packet is addressed.

Claim 21 (new): The gateway network element of claim 1 further comprising code that tunnels connections between a client node and a DCC-connected network element.

Claim 22 (new): The gateway network element of claim 1 further comprising code for categorizing the received packets based on the interface over which the packet was received and whether the destination address specifies the gateway network element.

Claim 23 (new): The gateway network element of claim 1 wherein the first network comprises to a Wide Area Network (WAN) and the second network comprises a Local Area Network (LAN).